Name:_____ **Division in Different Forms** Period:_____Date:_____

Transition to High School Mathematics

Fill in the blank boxes with the appropriate form of division.

$A \div B = C$	$A \times \frac{1}{B} = C$	$A(\frac{1}{B}) = C$	$\frac{A}{B} = C$
Elementary School	Middle to High School	High School	High School
$16 \div 4 = 4$	$16 \times \frac{1}{4} = 4$	$16(\frac{1}{4}) = 4$	$\frac{16}{4} = 4$
$12 \div 4 = 3$	$12 \times \frac{1}{4} = 3$	$12(\frac{1}{4}) = 3$	$\frac{12}{4} = 3$
$8 \div 4 = 2$			
	$4 \times \frac{1}{4} = 1$		
		$0 \times \frac{1}{4} = 0$	
			$\frac{-1}{4} = -0.25$

Any **integer** $[\![\ldots -3, -2, -1, 0, +1, +2, +3 \ldots]\!]$ can be written as a fraction by dividing by 1.	$-7 = -\frac{7}{1} = \frac{-7}{1}$ $\quad 5 = \frac{5}{1}$ $\quad 1 = \frac{1}{1}$

Transform **division by a fraction** into **multiplication by the reciprocal** of the fraction	
$2 \div \frac{3}{5} \equiv 2 \times \frac{5}{3}$	$\frac{\frac{2}{3}}{5} \equiv 2 \div \frac{3}{5} \equiv 2 \times \frac{5}{3}$
$2 \times \frac{5}{3} = \frac{\mathbf{2}}{\mathbf{1}} \times \frac{\mathbf{5}}{\mathbf{3}} = \frac{2 \times 5}{1 \times 3} = \frac{10}{3}$	
$7 \div \frac{1}{3} \equiv 7 \times \frac{3}{1}$	

Write subtraction as…..	….**addition of a negative**
$a - b$	$a + (-b)$
$10 - 4 = 6$	$10 + (-5) = 6$
Definition of Subtraction	$a - b = a + (-b)$